

Remarks

New Claims 52-76 are pending in the application following entry of this Amendment. Claims 1-51 have been canceled. Claims 52 and 69 are the only independent claims pending.

The specification paragraph [0046] is amended for consistency with recitals in original Claim 18, lines 11-13 of the Claim. Additional antecedent basis is found in original Claim 31, lines 9-11 of the Claim. Additional antecedent basis is found in original Claim 47, lines 7-8 of the Claim.

Claim 1 is amended to recite, a capstock, wherein the capstock comprises a plurality of color streaks and a substantially clear capstock layer through which coloration of the underlying tinted substrate is observed to provide a three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer.

Antecedent basis for amended Claim 1 appears in the specification, as follows:

(Applicant's specification at [0026]) The term "substantially clear" layer, for the purposes of the present invention, describes a film-like layer through which the coloration of the underlying substrate 15 may be readily observed, that is, the underlying substrate color contributes to the apparent color of the final product including the substrate covered with the substantially clear layer. This contrasts to typical siding products which provide substantially all of the visible color of the product within the capstock, such that the substrate provides no significant contribution to the visible color.

(Applicant's specification at [0048]) As the capstock resin 17 material and the streaker pellets 19 are heated in the fourth zone 130, the resinous component of the streaker pellets 19 tends to encapsulate the inorganic pigment material so that it does not disperse well into the

viscous capstock resin 17 material. When subsequently extruded through the coextrusion die 16, the accent color pellets 19 tend to stretch, and do not disperse to any significant degree in the extruded panel 11. This forms accent color streaks 19a that simulate wood grain on the surface of the panel 11. Further, because the accent color streaks 19a are located in the clear capstock layer 13, while the underlying vinyl substrate material 15 is colorized (tinted), a three-dimensional effect is created within the variegated siding panel 11.

(Applicant's specification at [0051]) Further, by placing the accent color streaks 19a in the acrylic capcoat layer 13 above a colored substrate layer 15, a variegated siding panel 11 may be produced with a three-dimensional wood grain effect that more closely simulates natural wood grain sidings.

Applicant will now discuss the Rejection (01/10/2007) Pursuant to 35 U.S.C. § 103(a) in view of *Dorchester et al.* US 5,869,176.

As reiterated by the Supreme Court in *KSR International Col v Teleflex Inc.*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.* 383 U.S. 1, 148 U.S.P.Q. 459 (1966). Applicant will now discuss the *Graham* factual inquiries.

Graham v. John Deere Co. factual inquiry (1.) Determining the scope and content of the prior art, *Dorchester et al.* US 5,869,176.

(Dorchester et al. US 5,869,176 Col. 2, Ln. 36 et seq.) Typically, pigments, in the accent color pellets are selected to contrast to some degree with the surrounding or background color of the capstock base material or sometimes the substrate material of the panel. The accent color may be lighter or darker than the surrounding background.

(Dorchester et al. US 5,869,176 Col. 3, Ln. 62 et seq.) "It has been common in the industry to add pigments to the base material to supply the "background" color for the capstock. With the present invention, this addition is not necessary. By adjusting the proportion of PMS in the accent color pellets, a controlled quantity of the pigment can be dispersed into the base material."

(Dorchester et al. US 5,869,176 Col. 8, Ln. 7 et seq.) "With the present invention, by using a lower proportion of PMS to the low vicat softening point temperature resin in the pellets, an increased, but still controllable, amount of the accent color may be allowed to disperse into the capstock base material, thereby imparting a slight color to the background, and softening the edges of the streaks. This effect is referred to as "soft streaking."

(Dorchester et al. Claim 15) recites, in part, "the accent color pellets provide a background color and at least one accent color to the capstock."

Graham v. John Deere Co. factual inquiry (2) Ascertaining the differences between the claimed invention and the prior art.

Applicant's Claim 52 recites, a capstock, wherein the capstock comprises a plurality of color streaks and a substantially clear capstock layer through which coloration of the underlying

tinted substrate is observed to provide a three-dimensional effect of the color streaks above the underlying tinted substrate and in the substantially clear capstock layer.

Graham v. John Deere Co. factual inquiry(3) Resolving the level of ordinary skill in the pertinent art.

The prior rejection (01/10/2007) states, "The prior art (Dorchester US 5,869,176) clearly teaches that the pigments in the surface layer can be varied, it would have been obvious .. to have varied the combination of materials based on what appearance was desired. This would include having a transparent surface layer with accent colors as claimed."

The matter to be resolved is whether Dorchester US 5,869,176 inherently discloses, or renders obvious, the (Graham v John Deer Co.) ascertained differences in Applicant's claim 52.

Dorchester et al. discusses, "It has been common in the industry to add pigments to the base material to supply the "background" color for the capstock. With the present invention [of Dorchester et al.], this addition is not necessary. By adjusting the proportion of PMS in the accent color pellets, a controlled quantity of the pigment can be dispersed into the base material." (Dorchester et al. Claim 15) recites, in part, "the accent color pellets provide a background color and at least one accent color to the capstock."

Dorchester et al. discloses the use of color pellets to disperse pigment into a base material of a capstock, which does not inherently eliminate background color for the capstock, and thereby would not have obviously suggested the three-dimensional effect recited in Applicant's claim 52.

Applicant's specification states, at paragraph [0048], "As the capstock resin 17 material and the streaker pellets 19 are heated in the fourth zone 130, the resinous component of the streaker pellets 19 tends to encapsulate the inorganic pigment material so that it does not disperse well into the viscous capstock resin 17 material. When subsequently extruded through the coextrusion die 16, the accent color pellets 19 tend to stretch, and do not disperse to any significant degree in the extruded panel 11."

Thus, the specification does not encompass the Dorchester et al. concept of dispersing a controlled quantity of pigment from pellets into a base material of a capstock (to render unnecessary what has been common in the industry to add pigments to the base material to supply the "background" color for the capstock). Stated differently, Applicant's claim 52 interpreted by the specification does not reasonably encompass the Dorchester et al. concept of using color pellets to disperse pigment into the base material of a capstock.

In view of the (Graham v John Deere Co.) determination of the scope and content of Dorchester et al., the reference does not inherently or obviously suggest an absence of pigment in the base material of a capstock.

The rejection (01/10/2007) states, "The prior art clearly teaches that the pigments in the surface layer can be varied, it would have been obvious to one having ordinary skill in the art to have varied the combination of materials used based on what appearance was desired. This would include having a transparent surface layer with accent colors as claimed."

The rejection can be based on MPEP 2144.09 I. CLOSE STRUCTURAL SIMILARITY IS FOUNDED ON THE EXPECTATION THAT COMPOUNDS SIMILAR IN STRUCTURE

WILL HAVE SIMILAR PROPERTIES, wherein in Dorchester et al. such similar properties would include a transparent surface layer with accent colors.


An affidavit of an expert, George Walrath, was submitted (09/22/2006) to provide evidence of unexpected results. Section 7 of the affidavit describes a "3-dimensional effect of the grain," further discussed in Section 13. Samples referred to in the affidavit included a prior art sample with color in the capstock (consistent with Dorchester et al.), and an article without color in the capstock (consistent with the invention). In accordance with MPEP 2144.09 VII, the affidavit rebuts the *prima facie* case of obviousness based on structural similarity by proof that the claimed compounds possess unexpected advantages or superior properties in a 3-dimensional effect.

Accordingly, Claim 1 is amended to describe a three-dimensional effect, by which the affidavit rebuts the *prima facie* rejection that pigment into the base material of a capstock, as in Dorchester et al. would have similar properties as a transparent surface layer (material) with accent colors.

Summary

In view of the new Claims and the Remarks in support of patentability, allowance is requested. The Examiner is invited to telephone the undersigned for any reason to advance the prosecution of the application.

Respectfully submitted,
George A Walrath

(Date) January 17, 2008 By: 
Gerald K. Kita
Registration No. 24,12

Customer No. 08933
DUANE MORRIS LLP
30 South 17th Street
Philadelphia, PA 19103-4196
Direct Dial: 215-979-1863
Facsimile: 215-979-1020
E-Mail: GKKita@DuaneMorris.com